AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in this application:

LISTING OF CLAIMS:

Claims 1 to 17. (Canceled).

18. (Currently Amended) A device for anisotropically etching a substrate, comprising:

a plasma source to generate a high-frequency electromagnetic alternating field;

a chamber and a reaction region to generate a plasma having reactive species, within the chamber, by an action of the alternating field on an etching gas which can be introduced into the reaction region and a passivation gas which can be introduced into the reaction region; and

an arrangement to permit ~~at least one~~ a plurality of first ~~zone~~ zones acted upon at least predominantly by the etching gas to be defined in the reaction region and to permit ~~at least one~~ a plurality of second ~~zone~~ zones acted upon at least predominantly by the passivation gas to be defined in the reaction region, wherein downstream from the reaction region, a mixing region is provided to blend the reactive species generated in the first ~~zone~~ zones from the etching gas and the reactive species generated in the second ~~zone~~ zones from the passivation gas with one another before they act on the substrate;

wherein the etching gas zones and the passivation gas zones alternate around a circumference in the overhead view, and

wherein the arrangement is arranged so that the gas supplied to the first zones and the gas supplied to the second zones are spatially separated from one another before reaching the mixing region, and during which the blending of both of the gases is at least largely prevented.

Claim 19. (Canceled).

20. (Previously Presented) The device of claim 18, wherein the plasma source includes an inductively coupled plasma source having a coil, which can be used to generate a plasma in the reaction region, in the first zone and the second zone.

21. (Previously Presented) The device of claim 18, wherein the arrangement includes an insert body, which is made of glass or ceramic and which delimits at least one passivation gas zone and at least one etching gas zone, the etching gas being suppliable to the etching gas zone via an assigned gas inlet, and the passivation gas being suppliable to the passivation gas zone via an assigned gas inlet.

22. (Currently Amended) The device of claim 18, wherein the arrangement includes an insert body, whose plan view is at least one of star-shaped and cylindrically symmetrical, which is integrated into the chamber or placed on the chamber, and further includes partition walls which separate the ~~at least one~~ etching gas ~~zone~~ zones and the ~~at least one~~ passivation gas ~~zone~~ zones from each other, the insert body being at least largely sealed by a plate having gas entry openings, on its side facing away from the substrate, and being open on its side facing the substrate.

23. (Previously Presented) The device of claim 18, wherein the arrangement includes an insert body, which is integrated into the chamber or placed on the chamber, and whose plan view is cylindrically symmetrical, and which has at least two guide tubes, the etching gas being suppliable to a first part of the guide tubes defining etching gas zones, and the passivation gas being suppliable to a second part of the guide tubes defining passivation gas zones, the guide tubes having gas entry openings, defined by a cover plate, on their side facing away from the substrate, and the guide tubes being open on their side facing the substrate and opening into the mixing region.

24. (Previously Presented) The device of claim 18, wherein the arrangement includes an insert body, which is integrated in the chamber or placed on the chamber, and whose plan view is cylindrically symmetrical, and which has an exterior wall and a cover plate through which at least one guide tube, which defines

a passivation zone, passes, the cover plate having a gas entry opening assigned to the guide tube, and the cover plate having at least one further gas entry opening, which leads into an interior of the insert body or which is connected to at least one additional guide tube, which defines an etching gas zone.

25. (Previously Presented) The device of claim 24, wherein one of the following is satisfied: (i) at least one of the guide tubes and the insert body is open on its side facing the substrate and is open into the mixing region; and (ii) the insert body has, on its side facing the substrate, a base plate having at least one gas exit opening.

26. (Previously Presented) The device of claim 23, wherein at least one of the following is satisfied: (i) the guide tubes are positioned concentrically around an axis of symmetry of the chamber and run parallel to one another; (ii) and a central guide tube is provided, around which the guide tubes are, concentrically situated.

27. (Previously Presented) The device of claim 18, wherein the etching gas zones and the passivation gas zones are situated so that, in the mixing region, the reactive etching gas species produced from the etching gas and the reactive passivation gas species produced from the passivation gas are thoroughly mixed.

28. (Previously Presented) The device of claim 18, wherein the arrangement includes an upper zone with respect to a location of the substrate and a lower zone with respect to the location of the substrate, the etching gas being suppliable to one of the zones via gas guides, and the passivation gas being suppliable to the other of the zones, so that thorough mixing of both gases or of reactive gas species generated from them by the action of plasma first occurs at least substantially in the mixing region.

29. (Currently Amended) The device of claim 18, wherein the plasma source includes a microwave source to generate a plasma in the reaction region, in the first ~~zone~~ zones and in the second ~~zone~~ zones, the microwave source having a waveguide assigned to each of the zones for injecting microwave radiation into the zones.

30. (Previously Presented) The device of claim 18, wherein the arrangement includes one of: (a) at least one of (i) at least one etching gas lance which, during operation, induces a directed gas flow of the etching gas, and (ii) at least one passivation gas lance which, during operation, induces a directed gas flow of the passivation gas; and (b) a showerhead having at least one opening for the etching gas and at least one opening for the passivation gas.

31. (Currently Amended) A method for anisotropically etching a substrate, the method comprising:

generating a high-frequency electromagnetic alternating field with a plasma source, which generates a plasma having reactive species, within a chamber, in a reaction region, by an action of the alternating field on an etching gas introduced into the reaction region and a passivation gas introduced into the reaction region;

in the reaction region, introducing the etching gas at least predominantly into ~~at least one~~ a plurality of first ~~zone~~ zones, and introducing the passivation gas at least predominantly into ~~at least one~~ a plurality of second ~~zone~~ zones, the etching gas zones and the passivation gas zones alternating around a circumference in the overhead view, wherein reactive etching gas species are generated in the first ~~zone~~ zones by a plasma generated there, and reactive passivation gas species are generated in the second ~~zone~~ zones by a plasma generated there; and

blending the etching gas species and the passivation gas species with one another in a mixing region downstream of the reaction region before they act on the substrate.

32. (Previously Presented) The method of claim 31, wherein at least one of the following is satisfied: (i) the etching gas and the passivation gas are supplied at the same time; and (ii) a minimized quantity of passivation gas is used compared to a quantity of the etching gas.

33. (Previously Presented) The method of claim 31, wherein at least one of the following is satisfied: (i) the etching gas donates fluorine radicals when acted on by the plasma is used as an etching gas; and (ii) the passivation gas donates teflon-forming monomers when acted on by the plasma.

34. (Previously Presented) The method of claim 31, wherein an at least approximately constant proportion of energy introduced into the plasma by the plasma source is input into the passivation gas at least approximately independently of the passivation gas flow in the reaction region.

35. (Previously Presented) The device of claim 18, wherein the arrangement includes an insert body, which is made of glass or ceramic and which delimits passivation gas zones which are spatially separated from each other and etching gas zones which are spatially separated from each other, the etching gas being supplied to the etching gas zones via an assigned gas inlet, and the passivation gas being supplied to the passivation gas zones via an assigned gas inlet.